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PLANTAE NOVAE AFRICANAE.

“Ex Africa semper aliquid novi.”—*Pliny*.

SERIES XII.

(With Plates 6 and 7.)

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Leucadendron cryptocephalum, L. Guthrie. (Proteaceae).

Frutex ad 1 m. altus, ramulis puberulis. *Folia* 7—10 cm. longa, 1—1·5 cm. lata, ex toto luteo-viridia, superiora adpresso-pubescentia, capitulum cingentia omninoque occultantia. *Flores mares*: capitulum 1·8 cm. longum, 1·5 cm. latum: perianthium glabrum, 5 mm. longum: antherae incurvae. *Flores feminei*: capitulum 2 cm. longum, 1·3 cm. latum, conicum: bractae pubescentes: perianthium glabrum, 5 mm. longum. *Ovarium* ovoideum, 1 mm. longum, glabrum: stylus 4 mm. longus, stigmate vix 1 mm. lato. *Strobilus* 4·5 cm. longus, 3·5 cm. latus. *Germen* atro-brunneum, superne alatum, 1 cm. longum, in parte superiore 1 cm. latum.

Description.—A shrub up to about 3 ft. *Branches* puberulous when young, later becoming glabrous. *Leaves* yellow-green in colour, the lower 7—8 cm. long, 1 cm. wide, glabrous except at the base, the upper pubescent, up to 10 cm. long, 1·5 cm. wide, obtusely pointed, with a tuft of hairs at the tip, narrowing gradually to the widened midrib

at the base, those enclosing the flower heads becoming paler, shorter and narrowing to a rather acute tip. *Male flower heads* completely hidden in the upper leaves, 1·8 cm. long, 1·5 cm. wide, with a few inconspicuous brown involucreal scales at the base: bracts very hairy, about 2 mm.

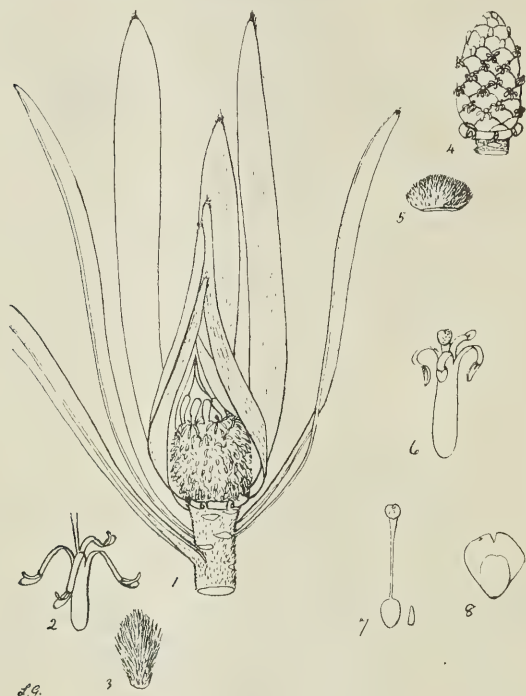


FIG. 1. *Leucadendron cryptocephalum*, L. Guthrie. 1. Male flower head with some of the upper leaves removed, natural size. 2. Male flower $\times 4$. 3. Male bract $\times 4$. 4. Female flower head, natural size. 5. Female bract $\times 2$. 6. Female flower $\times 4$. 7. Gynaecium with hypogynous scale $\times 4$. 8. Seed, natural size. Del. L. Guthrie.

long. *Flowers* 5 mm. long, glabrous, bright yellow when young: the limb about 2 mm. long. *Anthers* linear, curving inwards. *Style* 5 mm. long, glabrous, thickened to a clavate tip. *Female flower heads* hidden, about 2 cm. long 1·3 cm. wide, conical, with a small involucre of glabrous recurved brown scales: bracts minutely pubescent, 4 mm. long, 5 mm. wide. *Flowers* 5 mm. long, glabrous, the exposed free portions of the

perianth segments recurving. *Hypogynous scales* less than 1 mm. long. *Ovary* ovoid, glabrous, about 1 mm. long : style 4 mm. long, thickened gradually towards the apex : stigma flattened, slightly bifid, less than 1 mm. in diam. *Fruiting cone* ovoid, about 4.5 cm. long, 3.5 cm. wide : bracts brownish, up to 1 cm. wide : seed dark brown, winged from above the base, 1 cm. long, 1 cm. wide in the upper part.

Hab. Cape Province : Caledon Div., near the road leading from Caledon to Shaw Mountain, about three miles north of the pass. *L. Guthrie* 115 ; (type in Bolus Herbarium) ; *Salter* 7212. Fl. Mch.—April.

This species is most nearly allied to *L. decorum* R.Br., but is a lower growing shrub, always a yellowish green, scarcely changing its appearance at the flowering period. The inflorescences can only be seen when the enfolding leaves are removed. The flowering period is about two months earlier, and the flower heads are smaller. It has so far only been observed in the locality cited.

***Protea caledonensis*, L. Guthrie. (Proteaceae) § Paracynaroideae.**

Planta acaulis, caespitosa. *Folia* aggregata, 12—18 cm. longa, 1 cm. lata, glabra, petiolum breve versus gradatim angustata, marginibus crassis rugosis recurvatis. *Capitulum* 6.5 cm. longum, fere 4.5—6 cm. latum, receptaculo leviter convexo : squamae involucales pubescentes, pallide roseae, obtusae, interiores 4.5 cm. longae, 3—6 mm. latae. *Flores* involucrium breviter excedentes, 5 cm. longi : segmenta utrinque dense pubescentia : labium pubescens, 1.3 cm. longum, aristas 5 mm. longis, breviter penicillatis. *Ovarium* 7 mm. longum, dense villosum : stylus inflexus, glaber, 4.3 cm. longus, ad apicem gracillimus, stigmata terminale minuto.

Description.—*Stems* not exserted, caespitose, leaf-bearing portion above ground 2—5 cm. long. *Leaves* 15—20, 12—18 cm. long, up to 1 cm. wide, narrowing abruptly at the tip, with a short black mucro, tapering gradually below to a short petiole, at first pubescent, soon becoming glabrous, firm and rough in texture, with thickened rugose margins, the midrib prominent below : petiole 2—3 cm. long. *Flower heads* 6.5 cm. long, usually 4.5—6 cm. wide : surface of the receptacle slightly convex : involueral scales pubescent, ciliate ; the outer brownish in colour, narrowing from the base to the obtuse apex ; the inner pink, linear oblong, about 4.5 cm. long, 6 mm. wide, obtuse ; the innermost narrower, widening slightly towards the tip. *Flowers* shortly exceeding the involueral scales, about 5 cm. long : perianth sheath, villous without and within except at the expanded base, lip pubescent 1.3 cm. long, three awned, outer awns 5 mm. long, tufted with white and brown hairs. *Anthers* linear, 8 mm. long : connective produced

into a small subacute apical gland. *Hypogynous* scales about 2 mm. long. *Ovary* 7 mm. long, covered with red-brown hairs: style slightly curved 4·3 cm. long, glabrous, tapering gradually to the slender but obtuse tip: stigma terminal, very small.

Hab. Cape Province: Caledon Div., southern slopes of the Swartberg near Caledon. *L. Guthrie* 239 (type in Bolus Herbarium); hills about 3 miles north of Shaw Mountain Pass, *L. Guthrie* 388. Fls. April—June.

This species, when not in flower, resembles both *P. scabra* R.Br., and *P. aspera* Phillips, the flower heads, however, differing considerably. Those of *P. scabra* are smaller with golden brown involucreal scales, and *P. aspera*, to which it is most closely allied, has a considerably larger head, with a very convex receptacle, pallid involucreal scales and a hairy style.

***Pectinaria Mirkinii*, Pillans (Asclepiadaceae—Stapelieae).**

Caules procumbentes vel partim subterranei, 5—10 cm. longi, 0·6—0·8 cm. diam., obtuse tetragoni, dentati, glabri; pedicelli 3 mm. longi; corolla erecta, 1 cm. diam., extra glabra, tubo campanulato 4 mm. longo, fauce 5 mm. diam., intra minutis papillis, atropurpureo, lobis 4 mm. longis, deltoideis, acutis, patulis, apice leviter recurvis, supra minutissimis papillis, pallide luteis, basi et apice fusco-purpureis; corona exterior lobis 5, oblongo-lanceolatis, obtusis, 0·5 mm. longis, patulis, luteis; corona interior lobis incumbentibus, oblongis, obtusis, luteis, prope basin crista horizontaliter patente.

Description: *Stems* procumbent or partly subterranean, 5—10 cm. long, 0·6—0·8 cm. square, obtusely 4-angled, with channelled sides and small deltoid teeth on the angles, glabrous, dull green. *Flowers* in clusters of about 4 at the middle of the sides. *Pedicels* 3 mm. long, spreading, glabrous. *Sepals* 1·5 mm. long, ovate, acuminate. *Corolla* erect, 1 cm. wide across the lobes, glabrous on the outer surface. *Tube* 4 mm. deep, 5 mm. wide at the mouth, campanulate, somewhat pentagonal at the mouth, dull purple-brown on the outer surface, deep purple-brown and minutely papillate on the inner surface, each papilla tipped by a short hair. *Lobes* 4 mm. long, deltoid, acute, spreading, slightly recurved at the tips, pale on the outer surface; inner surface very minutely papillate, cream coloured, deep purple-brown across the base, with a purple-brown patch at the apex. *Outer corona* 2·5 mm. diam., composed of 5 very broad-based oblong-lanceolate, obtuse, spreading lobes 0·5 mm. long, egg-yellow. *Inner corona-lobes* incumbent upon the anthers and shortly exceeding them, oblong, obtuse, egg-yellow, with a purple patch on each side at the base, produced into a prominent tubercled boss at the base.

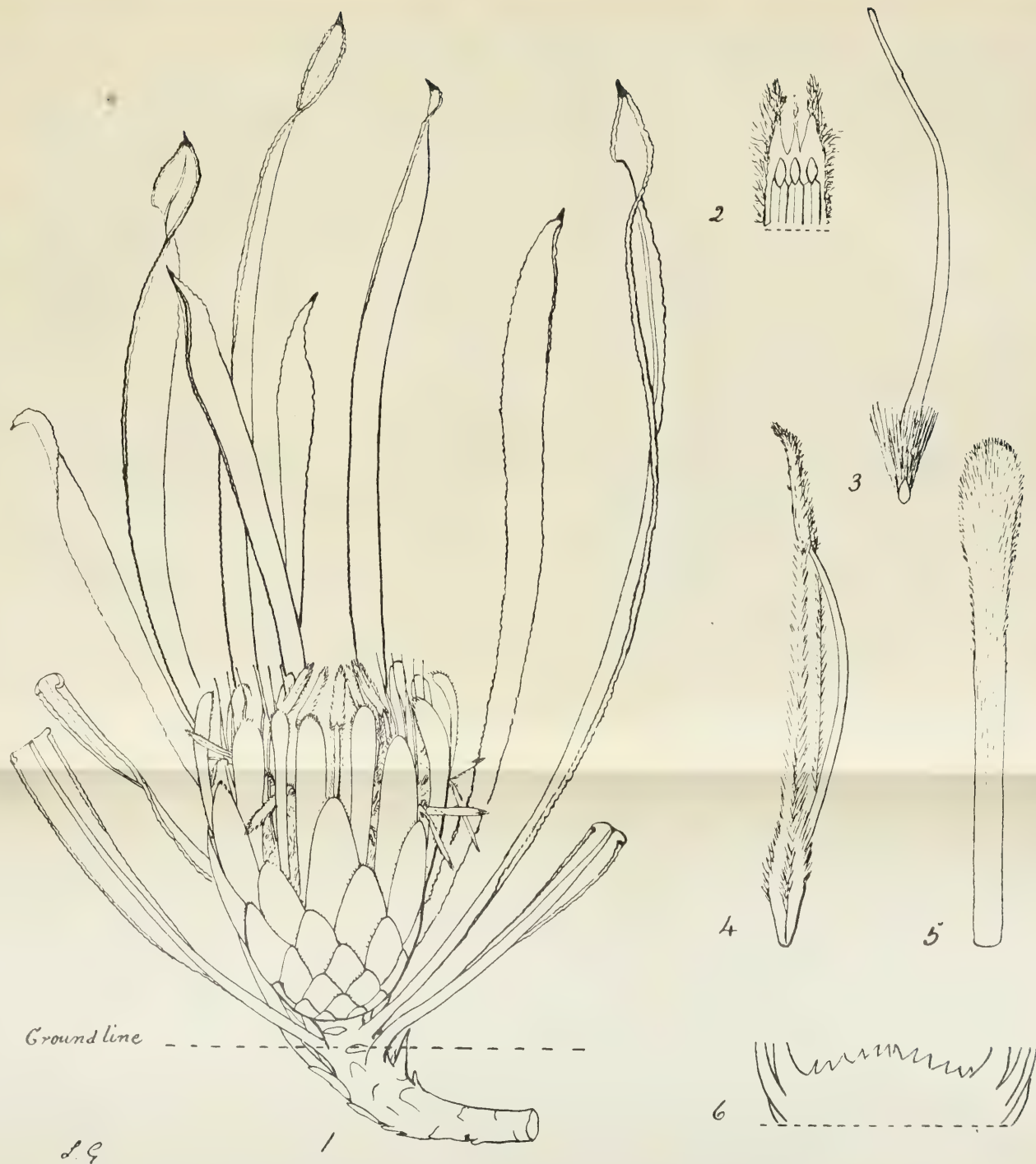


FIG. 2. *Protea caledonensis*, L. Guthrie. 1. Plant with leaves removed, natural size. 2. Upper portion of lip, enlarged. 3. Gynaecium $\times 2$. 4. Flower bud $\times 2$. 5. Inner involucre scale $\times 2$. 6. Upper surface of receptacle $\times 2$. Del. L. Guthrie.

Hab. Cape Province : Steytleville, *L. Mirkin* (in Bolus Herbarium 22432).

While having a close affinity in stems and corona with *P. arcuata* N.E. Br. the present species differs from all others in the genus by its free, spreading and slightly recurved corolla-lobes.

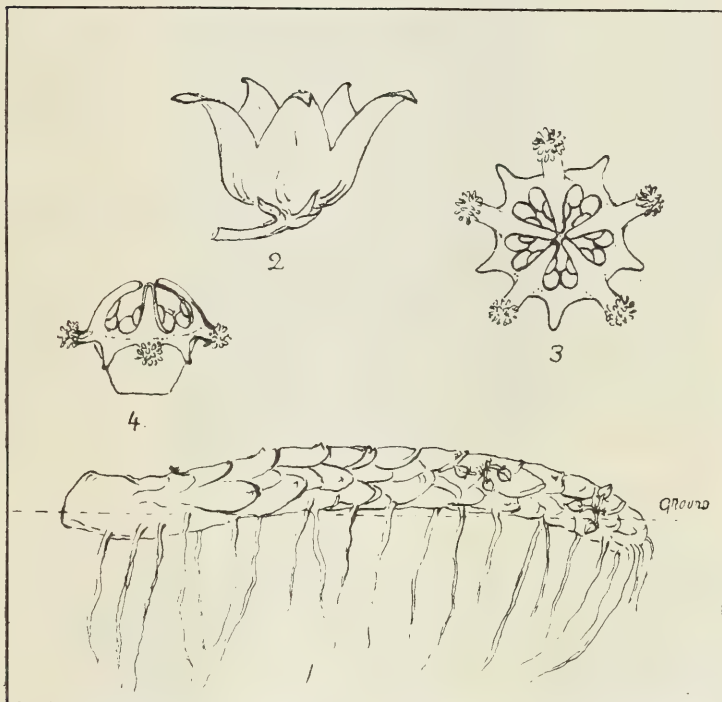


FIG. 3. *Pectinaria Mirkinii*, Pillans. 1. Stem, natural size. 2. Corolla $\times 4$. 3. Corona $\times 10$. 4. Corona $\times 8$. (Bolus Herb. 22432.) Del. B. O. Carter.

Huernia Longii, Pillans (Asclepiadaceae—Stapelieae).

Caules 3—5 cm. longi, ca. 0.8 cm. diam., 6—8-angulati, angulis in areolas medio apicula notatas divisus; pedicellis 5 mm. longis; corolla 1.8—2 cm. diam., pallide lutea, purpureo maculato, tubo campanulato, 6 mm. longo, supra medium papillis, lobis 7 mm. longis, deltoideis, acuminatis, papillois; corona exterior lobis 5, subquadratis atropurpureis; corona interior lobis 2 mm. longis, lineari-lanceolatis, obtusis, ad medium conniventibus, superne divergentibus atropurpureis.

Description: Stems tufted, erect, 3—5 cm. long, about 0·8 cm. diam., 6—8-angled, glabrous, dark green or purplish: angles 2 mm. wide, tessellately divided into obtuse, apiculate tubercles. *Flowers* produced near the base of young stems: pedicels 5 mm. long, glabrous: sepals 4—4·5 mm. long, lanceolate, acuminate, glabrous slightly recurved at the apex: corolla 1·8—2 cm. diam., glabrous on the outer surface, dull creamy yellow mottled with crimson on the inner surface, minutely spotted on the lower half of the tube: tube campanulate, 6 mm. long and wide, closely studded on the upper half within with elongated, slightly tapered papillae: lobes spreading, recurved towards the apex, 7 mm. long, 5 mm. diam., deltoid, acuminate, covered on the inner surface with columnar, very obtuse papillae tipped with a minute hair: outer corona-lobes subquadrate, rounded at the apex, dark purple-brown: inner corona-lobes 2 mm. long, connivent-erect, with slightly diverging tips, linear-lanceolate, obtuse and minutely scabrous at the apex, dorsally compressed, dark purple-brown.

Hab. Cape Province; Uitenhage Div., near Groendal, *F. R. Long* 1154 (in Bolus Herbarium).

The affinity of this species is doubtful. The corolla and corona resemble those of *H. Pillansii*, N. E. Brown, but the stems are very different. The material used for the present description was grown by Mr. David Pringle, Port Elizabeth, in April, 1939. (Plate 6.)

***Aloe ramosissima*, Pillans (Liliaceae—Aloineae), § Dracaloae.**

Frutex e basi copiose ramosus, 2—3 m. altus. *Rami* supra basin ca. 8 cm. diam. *Folia* ca. 12, dense rosulata, 13—25 cm. longa, 1·7—2·7 cm. lata, lanceolato-linearia vel lineari-oblonga, obtusa, supra planiuscula vel leviter concava. *Pedunculus* brevis, trifurcatim ramosus; racemi 10—15 cm. longi, 15—20-flori; bracteae ca. 5 mm. longae, deltoideae, acuminatae, scariosae; pedicelli 7—8 mm. longi, erecto-patentes; perigonium 30—40 mm. longum, ventricosum-cylindraceum, basi rotundatum: segmenta oblonga, obtusa, exteriora basi connata, apice leviter recurvula, interiora longiora. *Genitalia* distincte exserta.

Description: Plants copiously and dichotomously branched from the ground level, usually about 2 m. high at maturity, occasionally attaining to 3 m., measuring about the same in breadth as in height. *Branches* ascending or diverging, about 8 cm. thick on the lower parts of the plant, about 2 cm. thick on the upper, leafless except at the apices, smooth, covered with waxy, grey powder. *Leaves* about 12 in a rosette, crowded, spreading or slightly decurved, 13—25 cm. long, 1·7—2·7 cm. wide and 0·5—0·8 cm. thick at the middle, lanceolate-linear or linear-oblong, obtuse, flat or slightly concave on the upper surface, glaucous-green,

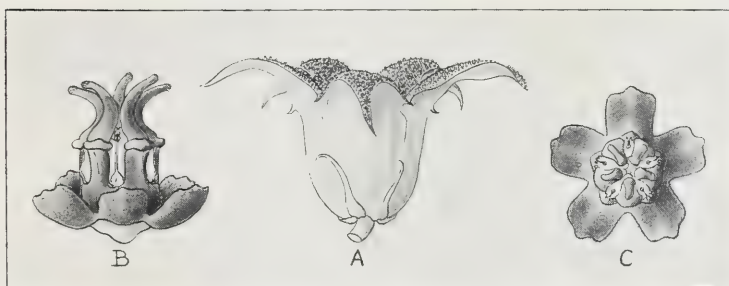


PLATE 6. *Huernia Longii*, Pillans.

FIG. 1. Photograph taken by Mr. D. Pringle, Port Elizabeth, of *Long* No. 1154, natural size.

FIG. 2. A. Flower, side view $\times 3$. B. Corona, side view $\times 6$. C. Corona, front view $\times 6$. Del. W. F. Barker.



FIG. 1.

FIG. 2.

FIG. 3.

PLATE 7. *Aloa ramosissima*, Pillans.

FIG. 1. An adult plant at the top of Hells Kloof, Namaqualand. (Photograph taken by Mr. G. W. Reynolds of his No. 2551 in July, 1937.)

FIG. 2. A flowering branch, gathered between Annisfontein and Hells Kloof. (Photograph taken by Mr. G. W. Reynolds of portion of his No. 2547 in July, 1937.)

FIG. 3. Buds, flowers and fruit, showing natural size. (Photograph taken by Mr. G. W. Reynolds of portion of his No. 2547 in July, 1937.)

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with pale yellow, minutely toothed, cartilaginous margins. *Inflorescence* 15—20 cm. long, erect, with 1 or 2 branches near the base. *Racemes* about 20-flowered, the terminal 12—15 cm. long, the lateral variously shorter. *Bracts* about 5 mm. long, deltoid, acuminate, cuspidate, membranous, 1-nerved, whitish. *Pedicels* 7—8 mm. long, erect-spreading. *Perianth* 30—40 mm. long, ventricose-cylindric, yellow, slightly declinate: outer segments oblong, obtuse, about 8 mm. wide, faintly nerved, connate at base into a tube about 8 mm. long; the 2 upper slightly spreading at the apices: inner segments free, very shortly exceeding the outer, oblong obtuse, greenish yellow, with 3 green nerves, pale and membranous at the margins. *Stamens* with about 12 mm. of their length exserted. *Ovary* about 6 mm. long, elliptical. *Style* with about 12 mm. of its length exserted. *Capsule* 30 mm. long, 18 mm. wide at the middle.

Hab. Cape Province: Namaqualand: hills between Bushman's Bank and Sendlings Drift, *Pillans* 5505; between Annisfontein and Hells Kloof, *Reynolds* 2547 (*type* in Bolus Herbarium); Hells Kloof, *Reynolds* 2550; near Hells Kloof, *Reynolds* 2548; top of Hells Kloof, *Reynolds* 2551, 2552.

This species is reported to occur on the mountain at Kubus in the Richtersveld, between Steinkopf and Viols Drift, and on the mountains north of the Orange River in South-West Africa. Its obvious affinity is with *A. dichotoma* from which it is distinguished by the constant habit of branching from the ground level, and by its smaller rosettes of smaller leaves. In the flowers, however, there does not appear to be any character which can be satisfactorily used for distinction.

My thanks are due to Mr. G. W. Reynolds for permission to use the ample notes which he made in the field and to publish the accompanying photographs of his Nos. 2547 and 2551 taken by him in July, 1937. (Plate 7.)

***Oxalis pendulifolia*, Salter. (Oxalidaceae.) § Lineares.**

Planta erecta ad 30 cm. alta, caule longo exserto. *Bulbus* late subuloides, fere 4 cm. longus, apice valde acutus, radice contrahendi, tunicis tenuibus satis pallide brunneis, praecipue in parte superiore lanatis et undulatis. *Rhizoma* longum, pubescens. *Caulis* rigidus, 7—30 cm longus, in parte inferiore pubescens, squamis nonnullis indutus, interdum ramulis brevibus vel foliis paucis instructus. *Folia* 6—12, ad caulis apicem plerumque aggregata: petioli filiformes, adscententes, sparse pubescentes, 2—3 cm. longi: foliola 3, plus minusve pendula, breve petiolulata, linearia vel oblonga vel rare obcordata, apice minute incisa, conduplicativa, leviter falcata, supra glabra, infra sparse pubescentia, 1—1.5 cm. longa, callis parvis numerosis aurantiacis copiose notata.

Pedunculi uniflori terminales, vel unus e squama caulina superiore exoriens, 3—4 cm. longi, glabri vel sparse villosi, in dimidio superiore

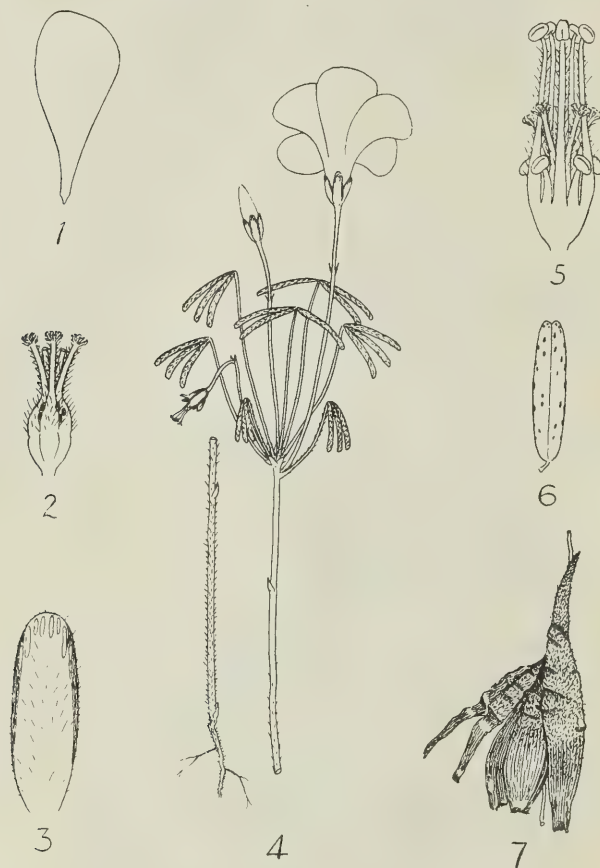


FIG. 4. *Oxalis pendulifolia*, Salter. 1. Petal $\times 1\frac{1}{2}$. 2. Gynaecium $\times 5$. 3. Sepal $\times 6$. 4. Plant, natural-size. 5. Androecium $\times 5$. 6. Leaflet, upper side $\times 2$. 7. Bulb tunics after the new bulb has been drawn down by the contractile root, natural size. Del. T. M. Salter.

articulati, bracteis 2 subulatis, callosis, oppositis. *Sepala* oblonga, obtusa inaequalia, 4—6 mm. longa, purpureo-marginata, sparse pubescentia ciliata, callis 6—10 linearibus, aurantiacis, ad apicem ornata. *Corolla*

glanduloso-viscida, ad 2 cm. longa, laete miniato-rubra, tubo viridescente: petala subcuneata, basin versus attenuata, apice oblique rotundata. *Filamenta* longiora 6·5—7 mm. longa, edentata, pilis simplicibus capitatisque obtecta. *Ovarium* 2 mm. longum, in dimidio superiore pubescens et callis rubris ornatum, loculis 2—3-ovulatis: styli pilis simplicibus capitatisque pilosi.

Hab. Cape Province: George Div., George, *Schlechter* 2294 (type in Bolus Herbarium); Montagu Pass, *Salter* 3164; Knysna Div., Belvedere, *Duthie* 780; Plettenberg (?) Bay, *Mundt*; 7 miles east of Woodville, *Salter* 6919. Fl. Feb.—Mch.

This early flowering species has been confused with *O. punctulata* R. Knuth, of which the type (*Bachmann* 87 from Hopefield district!) is a form of *O. versicolor*, L. *O. pendulifolia*, which has a contractile root, an elongate hairy bulb and an articulated peduncle, belongs to an entirely different group in the genus and is a close affinity of *O. duriuscula*, Schlechter, differing from that species in its pubescent green, not polished brown stem, obtuse sepals with numerous apical calli and longer filaments.

The description and drawing of the floral characters have been made from *Salter* 6919 which has recently flowered in cultivation at the Nat. Bot. Gardens at Kirstenbosch, but *Schlechter* 2294, specimens of which are already in several herbaria, has been chosen as the type. The flower is red, rather inclined towards brick-colour, with a greenish tube.

I am indebted to the Director of the Berlin Herbarium for the loan of the type of *O. punctulata*.

Oxalis stellata. E. and Z. var. *glandulosa*. *Salter* (Oxalidaceae) § Cernuae.

A forma typica differt:—*Planta* umbratica, gracilior laxior. *Bulbus* minor, fere 1·5 cm. longus, breviter rostratus. *Caulis* exsertus, interdum ramosus. *Foliola* ad medium vel paulum ultra bilobata, lobis obtusis. *Pedunculi* terminales vel interdum unus e squamae caulinae axilla exoriens, saltem in parte superiore, sicut pedicelli et calyx glanduloso-pilosi: pedicelli 2—3. *Corolla* minor, 1·1—1·3 cm. longa, alba vel pallide violacea, tubo sordide viridescente: petala angustiora, spathulato-cuneata.

Hab. Cape Province: Caledon Div., in rather shady places by a stream about 11 miles west of Caledon, *Salter* 2397 (type in Bolus Herbarium) 3310, 3312, 7214; Ceres Div., Mitchell's Pass, *Salter* 2099; Swellendam Div., near Barrydale, *Salter* 2330; Cape Peninsula, east slope of Swartkop, *Pillans* 8882, *Salter* 8078.

A much more lax and slender plant than the typical *O. stellata*, differing chiefly in its less deeply lobed leaflets, glandular peduncles,

petioles and sepals, smaller bulb and flowers and narrower petals. It is separable from *O. caprina*, L. (which is closely related to *O. stellata*) by the well exerted stem, narrower lobes on the leaflets and also by the glandular hairs referred to above. The species or group *O. stellata*—*O. caprina* is distinguished in the section by its small rostrate bulb.

Indigofera nitida, Salter. (Leguminosae—Papilionatae.)

Planta diffusa grisea, ad 40 cm. alta, pilis minutis hyalinis dense strigosa. *Caules* ad basin sublignosi, superne herbacei, sicut rami angulares. *Stipulae* subulatae, apicibus reflexis. *Folia* alternata, digitate trifoliolata, petiolis foliolis fere aequantibus: foliola sessilia, lanceolata, 1·5—2 cm. longa, utrinque pilis binatis, prope latitudinaliter tendentibus strigosa, apice apiculata, subtus nervo medio conspicuo. *Pedunculi* axillares, elongati, folia excedentes: racemi plus minusve compacti, multiflori, post anthesin modice elongati: bractae subulatae, caducae, 4—7 mm. longae: pedicelli fere 1·5 mm. longi. *Flores* miniato-rubri. *Calyx* 4—5 mm. longus, sicut petiolus albo-sericeus, lobis 3 inferioribus lanceolatis, plus minusve attenuatis, 2 lateralibus paulum brevioribus, sinu superiore satis lato. *Vexillum* orbiculare, vix unguiculatum, minute puberulum, basin versus purpurascens 0·8—1 cm. longum, carina erecta acuta aequans, quam alae latae paulum brevius. *Antherae* ovoideae, apiculatae. *Ovarium* 7—8-ovulatum, stylo superne angulato. *Legumen* pendulum, sericeum.

Hab. Cape Province: Cape Peninsula; roadsides near Constantia Nek, Salter 7854 (type in Bolus Herbarium) 7801, Wolley-Dod 3355; Lion's Mt. E. & Z. 1575 (*I. candicans*, Ait.), Bolus 9347; Table Mt., Bolus 2778; Roodebloem, Zeyher 4883; near Hout Bay, Salter 7658; Raapenberg, Guthrie 604; Wynberg Hill, Kensit (Levy's 6851); Devil's Peak, Page (Levy's 6852); Kirstenbosch, L. Bolus (Levy's 6853). Flowers Sep.—Nov.

This species is fairly plentiful in the Cape Peninsula and seems to have been confused with both *I. psoraloides*, L. and *I. candicans*, Ait. It differs from the former in its greyish silvery colour, shorter recurved stipules, larger flowers and shorter and broader racemes and in its more equal calyx lobes, the 3 lower lobes in *I. psoraloides* being twice as long as the 2 lateral. *I. candicans*, which does not occur in the Cape Peninsula, has proportionately longer petioles, more obtuse leaflets and much smaller stipules and flowers. Further *I. nitida* can easily be distinguished from both these species by the more dense glossy indument and by the arrangement of the hairs on the leaflets, the minute binate strigose hairs lying almost horizontally instead of nearly vertically.

Indigofera filifolia, Th., var. **minor**, Salter. (Leguminosae—Papilionatae).

A forma typica differt:—*Planta* erecta, 40—80 cm. alta, omnino minor, sparse ramosa. *Folia* paucula, stipulis lineari-lanceolatis 2—3 mm. longis. *Racemi* graciles, fere 10—16-flori. *Calyx* 2·5—3 mm. longus, lobis ovato-lanceolatis vel lanceolatis. *Vexillum* 6—7·5 mm. longum, alis aequans. *Ovarium* fere 8-ovulatum.

Hab. Cape Province: Cape Peninsula; marshy ground near Modderdam, Salter 7875 (*type* in Bolus Herbarium), 5751, 7606, 7874; plateau between Constantiaberg and Noord Hoek Peak, Levyns 6848; Constantiaberg, Schlechter 1469; near Smitswinkel, Compton (Levyns 6850).

This small variety has been under observation for some years, for it was at first suspected that it might prove to be a depauperised or epharmonic form of the typical *I. filifolia*, a robust densely branched shrub often 3—6 ft. high, which has the virgate habit of the European Broom (*Cytisus scoparius*, Link.). The peaty marsh near Modderdam, one of the localities in which this plant occurs, has not been burnt for a good many years and yet the plants have never attained the size and characters of the typical form.

The chief differences between the variety *minor* and the large typical form are shown in the following table:—

	Typical form.	Var. minor.
Flowering season	Feb.—Apl.	Sep.—Feb.
Height	1—1·5 metres. . . .	40—80 cm.
Habit	Bushy, copiously branched.	Slender, sparsely branched.
Racemes	Usually 20—30-flowered.	Usually 10—16-flowered
Leaves	Fairly numerous. . .	Few.
Stipules	Filiform or subulate, 1 mm. long.	Narrow-lanceolate, 2—3 mm. long.
Calyx	3—5 mm. long. . . .	2·5—3·5 mm. long.
Standard	8—11 mm. long. . . .	6—7·5 mm. long.
Ovary	11—12-ovuled. . . .	Usually 8-ovuled.
Legume	4·5—5·5 cm. × 4 mm.	3—4 cm. × 3·5 mm.

Cyclopia capensis, Salter. (Leguminosae—Papilionatae.)

Fruticulus erectus, saepe 30—50 cm., rare ad 1·5 m. altus, ramis ligneis virgatis adscendentibus. *Rami* glabri, castanei, politi, plerumque

efoliati: ramuli juniores ad apicem foliati, sparse cano-villosi, pallide luteo-brunnei, sicut rami, annorum praeteritorum petiolis persistentibus fere 1 mm. longis, infra glabris, supra et in axillis cano-pilosis induti. *Folia* trifoliolata, erecto-patentia: foliola linearia, mucronulata, glabra, plerumque 1—1.5 cm. longa, 1—1.5 mm. lata, marginibus revolutis itaque subtus canaliculata, petiolulis fere 1.5 mm. longis, sordide luteclis. *Flores* solitaires, axillares, laete flavi, omnino glabri, saepe 4—9 in racemis brevibus congestis terminalibus. *Pedunculi* 4—7 mm. longi, bracteis 2 basalibus, ovato-lanceolatis, acutis, semiamplexicaulibus, sub-conduplicativis, saepe persistentibus. *Calyx* laterale compressus, basi valde concavus, tubo 2 mm. longo, lobis apiculatis, 4 superioribus late lanceolatis falcatis, 6—7 mm. longis, inferiore paulum longiore, sub-conduplicativo, incurvo. *Vexillum* abrupte recurvum, breviter unguiculatum, lamina orbiculata, carinata, 1.5—1.7 cm. longa et lata, apice emarginata, minute cuspidata. *Alarum* laminae sub-hemisphaericae, apice obtusae, interne saccis conspicuis basin versus instructae, unguo obliquo acute inflecto. *Carina* valde fornicata, rostrata, saccis lateralibus prominentibus basin versus instructa. *Ovarium* planum, sessile, lanceolatum, glabrum, 5-ovulatum, stylo fornicato. *Legumen* erectum, fere 2.5 cm. longum.

Hab. Cape Province: Cape Peninsula; near Kanonkop, Paulsberg Range, *Salter* 8035 (type in Bolus Herbarium); flats west of Paulsberg, *Salter* 7170, 8036; near Smith's Farm, *Thorne* (S.A. Mus. 52162); near Sirkels Vlei, *Levy's* 6847; near Olifants Bosch, *Pillans* 8874; Red Hill *Levy's* 5618, *Penfold* (S.A. Mus. 52809). Fl. Feb.—Apl.

This species is in some respects intermediate between *C. genistoides* (L.) Vent. and *C. galioides* (Berg.) D.C. It is distinguished from the former by its rather larger flowers, emarginate standard with a minute cusp, the very prominent persisting hairy petioles and by the absence of the white-woolly ciliation on the calyx lobes. Further it flowers from Feb.—Apl. whereas *C. genistoides* flowers from Sep.—Nov. It is a more slender plant than *C. galioides* with narrower and paler green leaflets and it is without the dense smoky-grey indument on the branches and the basal overlapping of the calyx lobes which are characteristic of that species.

It is by no means rare in the southern part of the Cape Peninsula, usually occurring in open places. Mr. N. S. Pillans records a plant growing to 5 ft. in height near Olifants Bosch, but, like most species of *Cyclopia*, it appears to be slow-growing and probably only reaches its full development but rarely, owing to the periodic burning of the veld. After fires it assumes an entirely unnatural habit, for numerous radiating stems arise from the old roots and form a dome-shaped plant about 1 ft. high and as much or more in diameter and it is in this state that it is commonly found.

It was first brought to my notice by Professor R. H. Compton who pointed out that it differed from the two species referred to above and appeared to be an unnamed plant.



FIG. 5. *Cyclopia capensis*, Salter. 1. Ala $\times 1\frac{1}{2}$. 2. Carina $\times 1\frac{1}{2}$. 3. Calyx $\times 1\frac{1}{2}$. 4. Flowering branch, natural size. 5. Vexillum $\times 1\frac{1}{2}$. 6. Ovary $\times 1\frac{1}{2}$. 7. Legume, natural size. Del M. Walgate and T. Salter.